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# Increasing academic performance in Roma preschool children

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## Abstract

The educational opportunities of minorities are a main research theme. The Roma minority has developed low expectations in terms of educational and social achievement which explains the poor adaptation to academic life and the consecutive poor academic results. Our pilot study aimed to identify the relationship between the emotional intelligence and academic performance and to develop and investigate the effectiveness of an Emotional Intelligence Development Program on preschool Roma children. The hypotheses were confirmed. The implications of this study on increasing the emotional intelligence and, consecutively the academic performance in Roma children will be discussed.

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**Keywords:** emotional intelligence, academic performance, Roma minority, educational development.

## 1. Introduction

The educational opportunities of minorities are a main research theme in the international field. Serious scientific studies on this matter lack in Romania even though it is well-known that the Roma minority has many difficulties to adapt to the educational system, and generally to the main society. The studied minorities proved to have developed low expectations in terms of educational and social achievement which explains the poor adaptation to academic life and the consecutive poor academic results (Luciak, 2004). The same conclusion may apply to Roma minority in Romania as they have a long history of oppression and discrimination. According to Ogbu's theory (Ogbu & Simons, 1998) the treatment of the minority in the wider society can be seen in their educational treatment – overall educational policies and practices, the specific treatment of minority students in schools and classes and the lack of rewards from the main society; all are discriminatory. On another hand, studies focused on factors that may explain

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the academic performance differences between minorities and the majority population: economic status and language differences (Levels, Dronkers & Kraaykamp, 2008), others sociocultural aspects such as attitudes in school (Sewell & Hauser, 1975), folk theories about school, role models (Ogbu & Simons, 1998); differences in family rules (Caplan, Choy & Whitmore, 1992) family communication about school experiences (Kao, Tienda & Schneider, 1996) and parental participation in school activities.

There is an international consensus that intelligence is an important predictor of academic performance. Recent research showed that there are also non-cognitive factors, besides the general intelligence, responsible for high academic performance. A critical factor emerging from recent studies that significantly impacts the academic, social and professional adaptation has proven to be the emotional intelligence (e.g. Cherniss, Extein, Goleman, Weissberg, 2006). The results point to the emotional intelligence as a very powerful potential mediator of school outcomes (e.g. Parker et al, 2004; Marquez, Martin & Brackett, 2006; Mestre, Guil, Lopes, Salovey & Gil-Olarte, 2006). The proven benefits of high emotional intelligence in academic context are: coping with academic stress (Petrides, Frederickson & Furnham, 2004), improving overall school climate (Jensen & Freedman, 2006); predicting children's ability to learn and solve problems nonviolently (Zins, Weissberg, Wang & Walberg, 2004); decreasing school dropouts (Parker, Hogan, Eastabrook, Oke & Wood, 2006); reducing risky behaviors and increasing pro-social ones (Durlak & Weissberg, 2005 cited in Cherniss et. al., 2006; Petrides, Sangareau, Furnham & Frederickson, 2006; Trinidad & Johnson, 2002). The emotional intelligence is considered crucial for the academic and later social success in pre-school childhood (Denham, 2006; Arsenio, Cooperman & Lover, 2000).

This research data sustain the increased interest for the development and implementation of emotional development programs – social-emotional learning (SEL). Up till now, the main concern of educators has been to develop academic skills (reading, writing, and thinking) of children. Often emotional education has been viewed with skepticism and sustained with arguments such as time limitation in current curricula. Still “there is a solid and growing empirical base concluding that well-designed, well-implemented school-based prevention and youth development programming can positively influence a diverse array of social, health, and academic outcomes.” (Greenbert et al, 2003).

## 2. Objectives and Hypotheses

Our pilot study aimed to identify the relationship between the emotional intelligence and academic performance and to develop and investigate the effectiveness of an Emotional Intelligence Development Program on preschool Roma children. Our main hypotheses were: a) academic performance positively correlates with emotional intelligence; b) the emotional intelligence and consecutively, the academic performance would significantly increase in children undergoing the Program; c) the Emotional Intelligence Development Program would significantly improve the emotional intelligence and the academic performance in comparison with the control group.

## 3. Method

We developed an Emotional Intelligence Development Program (EIDP) in order to build social-emotional competencies in Roma preschoolers – knowing, managing and vectoring their emotions, increasing empathy and positive interpersonal relationships. EIDP for Roma preschool children aimed to develop the socio-emotional skills in the educational environment in order to prevent the emotional issues of preschool developmental stage and, also the school dropout. We used various types of exercises and techniques such as: making lists of emotions in order to identify them; exercises for evaluating discomforting situations; managing conflicts or developing empathy and assertiveness.

The program was divided into 10 group sessions, lasting 120 minutes each, performed weekly. The 20 preschoolers were actually divided into two groups of 10 in order for the activities to be conducted in a more appropriate setting and for every child to be able to work effectively. We used the Emotional Intelligence Scale for Children (Roco, 2004). Four teachers used a four scale criteria (low, average, high and superior) in order to evaluate the children's academic performance. N=40 Roma children from preparatory class aged between 6-8 years. We formed two equivalent groups – 20 children participated to our four-month EIDP and 20 children formed the control group. The two groups were equivalent regarding age, gender, level of education, level of general intelligence, level

of academic performance and emotional intelligence. Participants were evaluated on both variables at the beginning and at the end of the Program.

#### 4. Results

The first hypothesis assumed that academic performance positively correlates with emotional intelligence. The sample was formed of 40 participants. As Table 1 show, the higher the children' emotional intelligence, the higher the academic performance is. The effect size is  $r^2 = 0.213$ , corresponding to an explained variance of 21.3%.

Table 1. Spearman Correlation coefficient between emotional intelligence and academic performance.

	Emotional Intelligence	Academic performance
Emotional intelligence	1,000	,462**
Sig. (2-tailed)		,003
N	40	40
Academic performance	,462**	1,000
Sig. (2-tailed)	,003	
N	40	40

The second hypothesis expected that the emotional intelligence and consecutively, the academic performance would significantly increase in children undergoing the Emotional Intelligence Development Program. There were 10 psychotherapeutic sessions aiming to increase emotional intelligence. Table 2 summarizes the comparative analysis between the level of emotional intelligence before and after intervention. The results show that there are significant differences between the EQ mean scores of Roma preschool children before and after The Emotional Intelligence Development Program. Based on these data we can conclude that The Emotional Intelligence Development Program was efficient in increasing the emotional intelligence.

Table 2. Comparative analysis regarding the emotional intelligence before and after intervention.

	Mean	t	df	Sig. (2-tailed)
EQ– preintervention	93.00	-14,802	19	,000
EQ – postintervention	124,25			

Table 3 summarizes the comparative analysis between the level of academic performance before and after intervention. The results show that there are significant differences between the academic performance rank scores of Roma preschool children before and after The Emotional Intelligence Development Program. Based on these data we can conclude that The Emotional Intelligence Development Program was efficient in increasing the academic performance.

Table 3. Comparative analysis regarding academic performance before and after intervention.

	Academic performance before and after intervention
Z -Wilcoxon Signed Ranks Test	-3,873
Asymp. Sig. (2-tailed)	,000

The third hypothesis expected that the emotional intelligence and consecutively, the academic performance would significantly increase in children undergoing the Emotional Intelligence Development Program (N1=20) in comparison with the control group (N2=20). Table 4 summarizes the comparative analysis between groups regarding the level of emotional intelligence. The results show that there are significant differences between the EQ mean scores of Roma preschool children whom attended The Emotional Intelligence Development Program in comparison

with the control group. Based on these data we can conclude that The Emotional Intelligence Development Program was efficient in increasing the emotional intelligence.

Table 4. Comparative analysis regarding emotional intelligence between groups

	Mean	t	df	Sig.
EQ – N1	122.25	14,125	38	.000
EQ – N2	74.75			

Table 5 summarizes the comparative analysis between groups regarding the level of academic performance. The results show that there are significant differences between the academic performance rank scores of Roma preschool children whom attended The Emotional Intelligence Development Program in comparison with the control group. Based on these data we can conclude that The Emotional Intelligence Development Program was efficient in increasing the academic performance.

Table 5. Comparative analysis regarding academic performance between groups

	Academic performance N1 - N2
Mann-Whitney U	95,000
Asymp. Sig. (2-tailed)	,002

## 5. Conclusions

Even though our study is a pilot one, we succeeded to demonstrate the significant positive association between emotional intelligence and academic performance. Therefore the higher the emotional intelligence is the higher the academic performance. Recent neurobiological and neurophysiological evidence about the fundamental role of emotion in cognition shows that successful learning in academia or in real life is based on socio-emotional processes primarily related to cognitive processes (Damasio & Yang, 2007).

In the same time we demonstrated that EIDP has a significant positive impact on increasing the emotional intelligence and academic performance of the participants. Promoters of emotional intelligence development programs highlight through recent research, theories that some educators and parents with good pedagogical or parenting skills have always known: the understanding of ourselves and of others and, also the ability to use this understanding to solve problems in an adaptive way, provide an essential basis for academic learning (Cohen, 1999).

Finally, we confirmed that the emotional intelligence and academic performance increase in the children that attended EIDP in comparison with the control group. Our result is sustained by Durlak & Weissberg' meta-analysis (2005) cited in Chemiss et. al. (2006) of SEL prevention and interventions programs that indicate large effects such as: improve personal and social behavior competencies, decrease antisocial behavior and aggression, lower discipline problems, increase school attendance, higher academic achievement scores, improve learning, etc.

The Emotional Intelligence Development Program that we built has proved successful. Still, in order to increase its validity it would have to be implemented during a whole year, with more rigorous observational methods and larger samples. Other several limitations to this study should be noted. The comparison samples were small and the results can't be generalized; our paper may be considered a pilot study for broader research. Another limitation of this study relates to the short duration in which the research was conducted (about four months). In the same time, the effects of this program in time should be proven. Still, the results might have implications in choosing the psycho-educational strategies when working with Roma children. Some aspects can be subject of reflection for the psychologists working with these children. Firstly, they should consider using emotional intelligence development techniques with Roma school children considering the impact that this feature has on academic performance and school adaptation. These kinds of program can generate conjectural and relational changes: a) better social

relationships between children due to increased social communication skills and decreased expression of maladaptive behaviors; b) higher well-being due to increased self-esteem and lower stigmatization; c) higher collaboration between children and teachers which increase the latter's educational impact. On the other hand, the psychologists can present these results to teachers in order to facilitate their understanding of Roma children and the impact of using emotional intelligence techniques to better manage their scholars' behaviors and academic results.

Secondly, the practitioners should take into account the possibility to introduce into the educational curriculum these types of activities as they have proven effective by many recent studies which sustain the relevance of emotional intelligence for school and social adjustment and, also for subsequent professional satisfaction and success in life. Thirdly, it is well recognized that the Roma children have difficulties in emotional regulation that, in turn, affect their concentration, memory and learning; therefore this kind of programs can help them.

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